

CLAIMS

What is claimed is:

1. A cooling system for an imaging engine, the imaging engine comprising a light source for exposing media, the system comprising:

- a coolant loop for cooling the light source with a coolant; and
- a pneumatically-operated cooler for removing heat from the coolant.

2. A cooling system as claimed in claim 1, wherein the coolant is water.

3. A cooling system as claimed in claim 1, further comprising a heat exchanger for removing heat from the coolant.

4. A cooling system as claimed in claim 3, wherein the heat exchanger is located in the coolant loop downstream of the light source and upstream of the pneumatically-operated cooler.

5. A cooling system as claimed in claim 3, further comprising a fan for flowing air over the heat exchanger.

6. A cooling system as claimed in claim 5, further comprising a cooling loop controller for controlling a speed of the fan and the pneumatically-operated cooler to thereby control a temperature of coolant to the light source.

7. A cooling system as claimed in claim 1, further comprising a cooling loop controller for controlling the pneumatically-operated cooler to thereby control a temperature of coolant to the light source.

8. A cooling system as claimed in claim 1, further comprising a cold-side temperature detector for sensing a temperature of the coolant to the light source and providing the temperature information to a cooling loop controller, which controls the operation of the pneumatically-operated cooler.

9. A cooling system as claimed in claim 1, wherein the pneumatically-operated cooler is a vortex cooler.

10. A cooling system as claimed in claim 9, wherein the vortex cooler receives pressurize air from a compressor of a platesetter or imagesetter in which the imaging engine is installed.

11. A method for cooling an imaging engine light source, the method comprising:
cooling the light source with a coolant; and
removing heat from the coolant with a pneumatically-operated cooler.

12. A method as claimed in claim 11, wherein the coolant is water.

13. A method as claimed in claim 11, further comprising removing heat from the coolant with a heat exchanger.

14. A method as claimed in claim 13, further comprising locating the heat exchanger a coolant loop downstream of the light source and upstream of the pneumatically-operated cooler.

15. A method as claimed in claim 13, further comprising flowing air over the heat exchanger.

16. A method as claimed in claim 15, further comprising controlling a speed for fan flowing the air over the heat exchanger and the pneumatically-operated cooler to thereby control a temperature of coolant to the light source.

17. A method as claimed in claim 11, further comprising controlling the pneumatically-operated cooler to thereby control a temperature of coolant to the light source.

18. A method as claimed in claim 11, further comprising detecting a cold-side temperature of the coolant and using the detected temperature in the control of the pneumatically-operated cooler.

19. A method as claimed in claim 11, wherein the pneumatically-operated cooler is a vortex cooler.

20. A method as claimed in claim 19, further comprising providing the vortex cooler with pressurize air from a compressor of a platesetter or imagesetter in which the imaging engine is installed.

21. A cooling system for an imaging engine, the imaging engine comprising a light source for exposing a media, the system comprising:

- a coolant loop for cooling the light source with a coolant; and
- a vortex cooler for removing heat from the coolant.